

Version with Markings to Show Changes Made

Page 7, line 18: delete "switch" and replace with --current source--.

Page 7, line 19: delete "switch" and replace with --current source--.

Page 7, line 20: delete "MS" and replace with --MT--.

Page 7, line 22: delete "MS" and replace with --MT--.

In the Claims

Kindly amend the claims as follows.

Kindly cancel claim 10.

Clean Set of Claims

Sub H1
G2

1. A current source switching circuit with reduced charge injection,
comprising:
a current source;
a transistor switch path;
a pull-down mirror path, comprising an amplifier and a switch
controlling current flow to said amplifier, in parallel with said transistor switch path
operating to ensure a constant current path from said current source; and
a first load;
wherein said transistor switch path and said pull-down mirror path
operate complementary to one another to reduce said charge injection flowing to
said first load during switching of current.

Sub H1
G3

11. The current source switching circuit according to claim 1,
wherein said pull-down mirror path switch comprises:
a series combination of a functional transistor with a respective
compensating transistor connected to either side of said functional transistor.

Sub H'
G4

18. A method of reducing charge injection from a current source through a current switch into a load, said method comprising:

providing a pull-down mirror path in parallel with said current switch, said pull-down mirror path and said current switch operating to ensure a constant current path from said current source;

turning a switch in said pull-down mirror path on when said current switch is turned off;

amplifying current directed to said pull-down mirror path; and

turning said switch in said pull-down mirror path off when said current switch is turned on;

wherein said current switch and said pull-down mirror path operate complementary to one another to reduce said charge injection flowing to said load during switching of current flow.

Sub H'
G5

21. A method of switching a current source out from a load, said method comprising:

opening a transistor switch connecting said current source to said load; and

substantially simultaneously with said step of opening, closing a switch to a pull-down mirror path, comprising an amplifier, in parallel with said transistor switch so that current from said current source flows through said pull-down mirror path, said pull-down mirror path and said transistor switch operating complementary to one another to ensure a constant current path from said current source and to equalize a current level produced by said current source;

wherein said load receives said current flowing from said current source when current is switched from said pull-down mirror path to said load thereby reducing charge injection from said current source to said load during switching of current.

22. Apparatus for switching a current source out from a load, comprising:

means for opening a transistor switch connecting said current source to said load; and

means for closing a switch to a pull-down mirror path in parallel with said transistor switch at substantially simultaneously a same time as said means for opening opens said transistor switch so that current from said current source flows through said pull-down mirror path, said pull-down mirror path and said transistor switch operating complementary to one another to ensure a constant current path from said current source and to equalize a current level produced by said current source;

wherein said load receives said current flowing from said current source when current is switched from said pull-down mirror path to said load thereby reducing charge injection from said current source to said load during switching of current.